

REMARKS

Claims 1, 3-4, and 6-10 are pending in this application. By the previous Office Action, claims 9-10 are withdrawn from consideration; and claims 1 and 3-8 are rejected under 35 U.S.C. §103(a). In the Amendment After Final Rejection filed on February 6, 2008, claims 1 and 9 were amended and claim 5 was canceled. By this Amendment, claims 1 and 9 are further amended. Support for the amendments to claims 1 and 9 can be found in the specification as filed, such as at page 8, lines 32-34. No new matter is added.

Applicants thank the Examiner for the indication in the February 28, 2008, Advisory Action that the February 6, 2008, Amendment was entered and that the rejection under §103 over Ueda and Hong has been overcome.

I. **Rejection Under §103(a)**

Claims 1, 4, and 6-8 are rejected under 35 U.S.C. §103(a) over Ueda in view of Miyake. Claim 3 is rejected under 35 U.S.C. §103(a) over Ueda and Miyake, and further in view of Kadokura. The Office Action argues that Ueda discloses all the limitations of the claimed invention except the use of Cu-Co alloy for the blackened shielding layer and the size of the particle for use in the blackened layer, but argues that Miyake and Kadokura overcome these deficiencies. Applicant respectfully traverses these rejections.

Independent claim 1 is directed to an electromagnetic shielding sheet comprising: a transparent base; a mesh metal layer having openings and formed on one of the surfaces of the base; a blackened layer formed on one of the surfaces of the metal layer; and a density-intensifying layer formed on the blackened layer for intensifying black density of the blackened layer, wherein the blackened layer is formed of Cu-Co alloy particles adhering to the metal layer, the density-intensifying layer is a chromated layer formed by a chromate treatment and so that the Cu-Co alloy particles are prevented from coming off from the mesh

metal layer by the chromated layer. Such an electromagnetic shielding sheet is not taught or suggested by the cited references.

According to the claimed invention, the density-intensifying layer is specifically for intensifying black density of the blackened layer, and is formed on the blackened layer. Furthermore, the density-intensifying layer is a chromated layer formed on the blackened layer of Cu-Co particles adhering to the mesh metal layer, by a chromated treatment. Also, the Cu-Co alloy particles in the blackened layer are prevented from coming off from the mesh metal layer by the chromated layer.

As a result of these features, because the density-intensifying layer is formed on the blackened layer to intensify the density of the blackened layer, the black density can be intensified as compared to structures of the prior art. Furthermore, because the Cu-Co alloy particles in the blackened layer are prevented from coming off from the mesh layer, the Cu-Co alloy particles can be maintained and perform securely a blackening function. As a result, the chromated layer can function not only as a density-intensifying layer, but also as a protecting layer for protecting the Cu-Co alloy particles. At least these features of the claimed invention are not taught or suggested by Ueda, Miyake, and Kadokura.

Ueda discloses an electromagnetic shield plate comprising a geometric pattern having a line width of 10 to 80 microns and a line interval of 50 to 250 mesh on a surface of a transparent substrate. Abstract.

Although Ueda discloses an electromagnetic shield plate, Ueda does not teach or suggest that any density-intensifying layer is formed on the blackened layer, or that the density-intensifying layer is a chromated layer formed by a chromate treatment. Ueda provides no reason or rationale for one of ordinary skill in the art to have incorporated these features into the electromagnetic shield plate of Ueda. Instead, Ueda simply discloses that "[w]hen forming the uppermost layer as a black colored layer, black nickel plating, chromate

plating, or black ternary alloy plating using tin, nickel, and copper, or black ternary alloy plating using tin, nickel, and molybdenum, should be applied for the formation of the black colored layer." Paragraph [0034]. Furthermore, in Ueda, the chromate plating is used in forming the upper layer of the black colored layer itself, and not for forming the upper layer of a separate density-intensifying layer. Ueda nowhere discloses or suggests any separate density-intensifying layer as claimed.

Thus, it is apparent from Ueda that the uppermost layer is a black colored layer, not a density-intensifying layer formed on a blackened layer, as claimed. Furthermore, that uppermost layer is no way operates to intensify black density of the blackened layer, as claimed. Ueda provides no reason or rationale for modifying any of its disclosure so as to arrive at the claimed invention.

Miyake and Kadokura fail to overcome these deficiencies of Ueda.

Miyake is cited for the disclosure of Cu-Co alloy for use in a blackened shielding layer. Miyake only discloses that Cu-Co alloy can be used as a material for absorbing electromagnetic waves. However, Miyake does not teach or suggest using any Cu-Co alloy powder that is adhered to a mesh metal layer as a blackened layer. That is, the Cu-Co powder of Miyake at most corresponds only to the mesh metal layer of the claimed invention, but cannot correspond to the claimed blackened layer. Nowhere does either Ueda or Miyake teach or suggest that Ueda's structure could or should be modified to utilize the Cu-Co powder of Miyake as part of a blackened layer. Nor does Miyake provide any reason or rationale that would have led one of ordinary skill in the art to incorporate into the structure of Ueda a density-intensifying layer formed on a blackened layer for intensifying black density of the blackened layer, as claimed.

Kadokura also fails to overcome these deficiencies of Ueda and Miyake. Kadokura is cited only for its disclosure of size of the particle for use in the blackened layer. However,

regardless of its actual disclosure, Kadokura also fails to teach or suggest that Ueda's structure could or should be modified to utilize the Cu-Co powder of Miyake as part of a blackened layer, as claimed. Nor does Kadokura provide any reason or rationale that would have led one of ordinary skill in the art to incorporate into the structure of Ueda a density-intensifying layer formed on a blackened layer for intensifying black density of the blackened layer, as claimed.

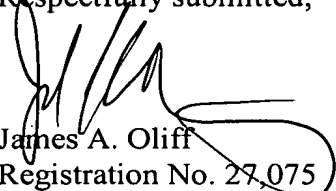
Accordingly, any combination of Ueda, Miyake, and Kadokura would not have rendered obvious the claimed invention. The claimed invention is thus patentable over the cited references. Reconsideration and withdrawal of the rejections are respectfully requested.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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JAO:JSA
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